

TELUS Communications Company

Annual Report to the Director

2015 Calendar Year

Reporting period January 1 – December 31, 2015

Submitted to: BC Ministry of Environment
Director, Extended Producer Responsibility Programs
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Date: June 27, 2016



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1. Executive Summary

The table below should concisely summarize program performance for the section 8 annual reporting requirements such that ministry staff and the public can easily understand whether reporting requirements and stewardship plan targets have been met.

Products within plan	<p><i>Telecommunication equipment:</i></p> <ul style="list-style-type: none"> ○ <i>Cordless phones and corded desktop, VOIP phones and analog terminal adapters;</i> ○ <i>Public Access Equipment;</i> ○ <i>Obsolete network infrastructure equipment (switches, servers), External customer networks, Servers, Optical network termination equipment, Internet equipment (routers, modems), Network cards;</i> ○ <i>Video and teleconferencing equipment;</i> ○ <i>TV equipment (PVRs, receivers, remote controls), Satellite TV equipment;</i> ○ <i>Global Positioning Systems (GPS);</i> ○ <i>Batteries; and</i> ○ <i>Cables/accessories.</i>
Program website	<p>http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/ewaste_stewardship</p>

Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(a)	Public Education Materials and Strategies	<p>a description of educational materials and educational strategies the producer uses for the purposes of this Part</p> <ul style="list-style-type: none"> - <i>Public information posted on telus.com website providing instructions on how to return equipment to TELUS at no charge.</i> - <i>To provide information to our customers TELUS client care agents are made aware of return process by way of online system, internal communication, bulletins.</i> - <i>TELUS Technicians are made aware of return process by way of inter-company communication, bulletins.</i> - <i>Customer Mail Back kit including instructions, carton, prepaid waybill.</i>
Part 2, section 8(2)(b)	Collection System and Facilities	<p>the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;</p> <p><i>Twelve collection facility locations:</i></p> <ul style="list-style-type: none"> - <i>Communication Test Design Inc. (CTDI), Delta BC</i> - <i>Telmar Network Technology (Telmar), Calgary AB</i> - <i>GEEP, Edmonton AB</i> - <i>Ccon Metals Inc., Abbotsford BC</i> - <i>Great Western Metals, Abbotsford BC</i> - <i>Metalex Products Ltd, Richmond BC</i> - <i>Edmonds Recycling, Langley BC</i> - <i>Sumas Environmental Services, Burnaby BC</i> - <i>UTI Contract Logistics and Distribution, Brampton ON</i> - <i>Schnitzer Steel Canada, Victoria BC</i> - <i>Canadian Energy, Burnaby BC</i> - <i>Call2Recycle, Vancouver BC</i>

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Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	<p>efforts taken by or on behalf of the producer to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the life cycle;</p> <p><i>In 2015 TELUS began a multi-pack process with our Supplier to pack multiple refurbished TELUS TV modems and set top boxes into one carton thus reducing the amount of packaging equipment. These multi-pack cartons are made of 50% post-consumer paper.</i></p> <p><i>Although TELUS is not a manufacturer of equipment (TELUS branded or not) that we sell or rent, we endeavor to work with our manufacturers to encourage them when designing for the environment to use minimal packaging materials; FSC certified, high recycled content, and or recyclable or biodegradable materials. Where appropriate and applicable, TELUS will also endeavor to include corporate social responsibility requirements in RFPs when selecting vendors.</i></p>
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	<p>a description of how the recovered product was managed in accordance with the pollution prevention hierarchy</p> <p><i>TELUS' triage of recovered equipment enables TELUS to follow the pollution prevention hierarchy, such as the regulation requires, to ensure pollution prevention is not undertaken at one level unless or until all feasible opportunities for pollution prevention at a higher level have been taken.</i></p>
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	<p>Provide a summary of the total amount of product sold, collection volumes and, if applicable, recovery rates achieved by the program based on the approach included in the approved program plan. Also provide a summary of total product recovered by regional district.</p> <p><i>Total Program Product Collection Volumes in 2015 is 740 mt Total Program Product Distributed into BC in 2015 is 1,289 mt Total Program Product Recovery Rate in 2015 is 57.43% See section 7 for details</i></p>
Part 2, section 8(2)(e.1)		<p>[See Section 7 for breakdown per regional district] <i>See Section 7</i></p>
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	<p>[Provide report reference to the independently audited financial statements] <i>Not applicable as TELUS fully funds program.</i></p>

Comparison of Key Performance Targets		
Part 2 section 8(2)(g); See full list of targets in Plan Performance		
Priority Stewardship Plan Targets (as agreed with ministry file lead)	Performance	Strategies for Improvement
1. <i>Target of 65% recovery</i>	<i>57.43% overall recovery however of our customer premise equipment the recovery rate is 60.36%</i>	<i>Customer Premise Equipment (Rental) Return Improvement Implementation Plan Development & Project Launched.</i>

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2. Program Outline

Provide a brief (1 page) overview of the stewardship agency/company and their members [website link], program inclusions, collection approach and any other high level information relative to the annual report e.g. studies completed, new targets set, consultations or surveys conducted.

Overview

TELUS Communications Company (TELUS) developed its own BC Electronic Equipment Stewardship Plan to adhere to the requirements set in the BC Recycling Regulation – Electronic and Electrical Product Category.

Our dedication to our environment goes beyond compliance. We are taking action on climate change and improving resource productivity. We are governed by our ISO certified Environmental Management System.

Environmental compliance

In 2015, TELUS took a major step towards meeting the highest recognized standards in our environmental management and compliance. Following a Canada-wide audit of our operations, we were awarded our ISO 14001:2004 certification by SGS Canada, an ISO registrar. This ISO standard is recognized globally as the highest level of environmental management certification. This is a goal we have been working toward since 2010. Achieving this standard, however, is only the beginning. Maintaining this ISO standard requires continual improvements to our environmental management processes, and TELUS is committed to identifying even more ways to better our performance.

Products Collected

TELUS has been collecting, refurbishing for reuse, reselling, and recycling electronics using our reverse logistics processes that are established, controlled and monitored on a national basis. TELUS' Plan addresses rental and retail TELUS customer premise equipment as well as our internal use equipment. Mobile devices are addressed under the Canadian Wireless Telecommunication Association's (CWTA) Stewardship Plan – Recycle My Cell.

The following is a general list of categories of equipment with regards to the requirements outlined by the BC Recycling Regulation – Electronic and Electrical Product Category. This list is an overview and does not list accessories or additional paraphernalia that might be associated with each equipment category. TELUS is committed to be responsible for all new products TELUS introduces into the marketplace.

- *TELUS TV Equipment (Set-top boxes, PVRs, Receivers, Remote Controls)*
- *TELUS Internet Equipment (Routers, Modems, Gateways)*
- *Network Printed Circuit Cards*
- *Public Access Equipment*
- *Cordless and Corded Phones (wireline)*
- *VOIP phones*
- *VOIP Analog Terminal Adapter*
- *Satellite TV equipment*
- *Global Positioning System (GPS) equipment*
- *Video and telephone conferencing equipment*
- *Batteries associated with these electronics*

Website:

[http://about.telus.com/community/english/about_us/for_our_customers/regulations %26 policies/environmental pol
icy/ewaste_stewardship](http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/ewaste_stewardship)

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3. Public Education Materials and Strategies

Provide a brief overview of the key materials and strategies used to promote awareness of the program. Identify the various types of outreach (i.e. face to face, social media, traditional media, etc.) utilized.

Reference: Recycling Regulation – Part 2, section 8(2)

(a) a description of educational materials and educational strategies the producer uses for the purposes of this Part

Education and Strategies

1. *Call Centre Awareness – call centre representatives are informed about the program and are equipped with the online information necessary to advise customers of their equipment return options.*
2. *TELUS Call Centre representatives coordinate pickup and return of business customer equipment to TELUS.*
3. *Return mailer kits including return instructions, carton, pre-paid waybill, provided to TELUS TV and TELUS Satellite TV customers. This program was expanded to include all TELUS TV and high speed internet access (HSIA) customers.*
4. *TELUS Website – our website contains information for customers on how to return items.
[http://about.telus.com/community/english/about_us/for_our_customers/regulations %26 policies/environmental poli cy/return %26 recycle program](http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/return_%26_recycle_program).*
5. *TELUS is a member of the Recycling Council of BC and participates in the BC Recycling Hotline service.*
6. *TELUS Technician Awareness – our technicians are informed about the program and TELUS' commitments to our customers with respect to equipment being returned.*
7. *TELUS Team Members Awareness –team members are provided with current information regarding the return of electronic equipment in this plan through a number of mechanisms. Mechanisms include online process information on our internal company website, inter-company bulletins, TELUS Green Teams, internal social media, and as required one on one email and phone conversations.*
8. *New in 2015, TELUS introduced our Nudge Rewards app to all TELUS team members. Nudge Rewards is a mobile app that engages employees via push notifications with tidbits about the energy use of the buildings and recyclable office materials in the form of trivia, fast-facts and contests. It also calls for brainstorming. Pop-ups appear to get feedback from app users to create company-wide initiatives that everyone has a stake in.*
9. *TELUS sales contracts offer a recovery service for end of life equipment. A clause to this effect can be included on a sales contract if customers wish to use this service.*
10. *Online Training for TELUS Team Members: TELUS Integrity Course is one of the Company's key policies and is reviewed by all TELUS team members on an annual basis. This compulsory course is deployed as an online training tool which covers the legal and regulatory requirements that TELUS team members must follow while carrying out their duties. The course includes environmental case studies specific to electronic waste.*

We worked on gaining a more complete understanding of our current state for our largest buildings by:

- *Engaging our team — over 50 volunteers from every department helped examine our facilities and identified innovative ways to help us achieve our waste reduction target*
- *Surveying our employees to identify potential barriers to recycling and ideas for improvement*
- *Complementing a series of past waste audits with additional audits to gain a more holistic picture of the composition of our waste*
- *Meeting with landlord partners to align efforts in achieving TELUS' diversion goal*
- *Including recycling and waste metrics in our real estate contracts*

These information-gathering exercises helped us identify factors that are influencing our diversion rates. Over the course of 2015, we focused on scouting a path to 90 per cent diversion, while implementing practical improvements in our operations.

4. Collection System and Facilities

Provide a brief overview of the way in which the stewardship agency collects the products from the consumer (i.e. depots, return to retailer, collection events, etc.). If available, list the number of collection facilities in each regional

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district and identify changes in the number, location, and method of collection from the previous year to the present year. If the list is extensive, consider including a summary and attaching a separate document or URL.

Reference: Recycling Regulation – Part 2, section 8(2)

(b) the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;

Twelve collection facilities owned by TELUS or TELUS Contractors/Vendors receive customer returns through recovery mechanisms. Both TELUS Technicians and TELUS Contractors recover equipment from customers and return to collection facilities. To ensure that all of our customers have access to a collection facility, TELUS provides a mail back program. TELUS residential customers have access to and Canada Post retail outlet in their area and TELUS business customer are provided with a courier pickup service.

Collection facility locations:

- *Communication Test Design Inc. (CTDI), Delta BC*
- *Telmar Network Technology (Telmar), Calgary AB*
- *GEEP, Edmonton AB*
- *Ccon Metals Inc., Abbotsford, BC*
- *Great Western Metals, Abbotsford BC*
- *Metalex Products Ltd, Richmond BC*
- *Edmonds Recycling, Langley BC*
- *Sumas Environmental Services, Burnaby BC*
- *UTI Contract Logistics & Distribution, Brampton ON*
- *Canadian Energy, Burnaby BC*
- *Call2Recycle, Vancouver BC*
- *Schnitzer Steel Canada, Victoria BC*

To provide easy access to TELUS' collection facilities in all Regional Districts, Canada Post, couriers (e.g. FedEx), and TELUS technicians are recovery mechanisms that increase public access to the Collection Facilities. For example, Canada Post has over 6,600 retail outlets across Canada. The Canada Post retail outlets and the location of each are available on the Canada Post website at <http://www.canadapost.ca/cpotools/apps/fpo/personal/findPostOffice>

5. Product Environmental Impact Reduction, Reusability and Recyclability

Identify ways in which producers or the agency contributes to the reduction of environmental impact. For example, utilization of certified processors, R&D performed to improve recyclability / reuse of the product or components, examples of design for environment mechanisms used by producer members of the agency, reduction of greenhouse gas emissions. The producer may also wish to report on the status of any studies being undertaken to assist with the measurement of environmental impacts. Identifying successes is encouraged.

Reference: Recycling Regulation – Part 2, section 8(2)

(c) efforts taken by or on behalf of the producer to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the life cycle;

Overview

TELUS' procurement and supply chain management team collaborate with internal and external partners to further integrate sustainability into our culture by developing action plans that have positive economic, environmental and social impacts. In early 2015, a supply chain sustainability steering committee was launched to develop new objectives, action plans and define and implement measures of success. Additionally, a cross functional team conducted a Supplier Sustainability Risk Fair Process workshop. A number of recommendations were developed, including assessment of suppliers' sustainability commitments throughout the procurement process and monitoring ongoing compliance with TELUS sustainability requirements through surveys and audits.

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In 2015, several initiatives were expanded and introduced, including our:

- *National Managed Spares Program: centralization of maintenance spare parts supporting wireless networks, wireline networks and business customer installations resulting in improved availability; reduced system outage times (less transportation); improved spare parts level management; and increased revenue from unnecessary parts resale instead of parts being idle or recycled. In 2015, TELUS saved almost \$600,000 of repair costs and avoided sending 2,210 network equipment parts for unnecessary repair.*
- *Wireless device repair process enhancements: focus on reducing the need for a repair through improved quality, diagnostics and customer support, leading to an improved customer experience and reduced use of resources. Enhancement also improved ease and speed of repair for consumer and business customers in the event that they have a real or perceived issue with the performance of their smartphone or standard wireless device. The year-over-year reduction in devices submitted for repair was 15 per cent. This represents 29,200 devices weighing approximately 3,200Kg that were not shipped for repair (approximately 50 per cent by air). Each reduction in repair also saves a customer at least one trip to a TELUS store and a seven-day wait time while their phone is being repaired.*
- *Wireless device certified pre-owned program: recovery of qualified wireless devices from customer returns and excess inventory, as well as the testing, refurbishment, and certification of previously owned devices to TELUS customers. This has resulted in improved customer satisfaction, asset management, and reduced recycle, asset shrinkage and waste. In 2015, we recovered 111,233 returned devices that otherwise would have been sent for e-waste processing.*

TELUS' processor that recycles our end of life electronic products are third party accredited with ISO 14001 and ISO 9001 certification, RQP (Recycler Qualification Program), R2 certification – Responsible Recycling Practices, and other certifications. The recycler of our lead acid batteries processes are regulated by the BC Ministry of the Environment, as well as industry associations.

Process Improvement

At TELUS our goal is to integrate environmental thinking into all facets of our supply chain. Defined as green supply chain management, this includes product design, material sourcing and selection, manufacturing processes, delivery of the final product as well as end-of-life/re-use management of the product after its useful life.

From 2013 through 2015, we re-engineered the end-to-end process for supply and asset recovery of products used by our customers in their homes to improve product traceability, recovery and the customer experience. By implementing a new system that allows customers who cancel their TELUS subscription to more easily return their TV and Internet equipment, we have increased the return rate of equipment from 65 to 95 per cent (nationally), as well as the number of refurbished units we can re-use.

In 2015, in addition to improving the volume and diversity of assets being recovered through various programs, we launched or enhanced initiatives and processes targeted at reducing packaging, transportation and materials handling. Examples include:

- *Future Friendly Home (FFH) Device and accessories recovery: recover, test, refurbish and re-use equipment from product returns, resulting in improved asset management, extended product lifetime, and reduced waste. In 2015 nationally, we re-used 700,000 pieces of FFH equipment and reclaimed for re-use over 230,000 parts from returns (e.g., smartcards, power adaptors, remote controls, microfilters, modem stands).*
- *Multi-pack initiative: in 2015, Lean Principles were used to enhance our initiative launched in 2014 aimed at reducing the use of packaging materials (cardboard and polystyrene) during the refurbishment process. In 2015 nationally, this initiative resulted in savings of more than \$1.2 million and reduced the number of cardboard boxes purchased by 360,000. Improvements included box re-design to reduce material content by 25 per cent and introducing new anti-static packaging to improve productivity. The recovery of 38,000 boxes from installers for re-use improved the quality of returned product and reduced the amount of plastic replacement parts used in the refurbishment process. These continuous improvements further cut unnecessary waste and saved resources in our communities. TELUS extended this initiative to our main equipment vendor for new purchases also.*
- *Double stack trailer: in 2015, the aforementioned packaging improvements allowed us to optimize pallet orientation and stacking in trailers to increase packing density and stability and further improve long-haul shipment efficiency. In 2015, we saved \$260,000 in direct freight costs and reduced CO₂ emissions.*

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- *Future Friendly Home equipment kitting: the process for kitting refurbished Satellite TV equipment (adding accessories and collateral) was streamlined to move it earlier in the refurbishment process. This reduced handling and the need to reopen packaged product to reduce process lead time, errors and cost.*
- *Network equipment decommissioning and asset recovery: as TELUS regenerates our network, we decommission old network equipment and actively recover these assets through a central process. Equipment is assessed for re-use within TELUS, marketed and sold for re-use, or recycled. In 2015, over \$700,000 in revenue was generated for re-investment in decommissioning and asset recovery activity, and 1,745 tonnes of national network equipment was responsibly recycled.*
- *Diversion from landfill: we actively manage asset reclamation and recycling for products and materials that cannot be re-used or re-sold to maximize the amount of material that is diverted from landfill and recycled as raw material. As recycling technology improves, we will add to the range of materials that are recycled. In 2015, 8,081 tonnes of equipment and materials was diverted from landfill across Canada.*

Supplier Governance

We strive to award business to suppliers who demonstrate a strong commitment to sustainable development by adopting ethical, labour, health and safety, and environmental principles. These principles must align with ours to help ensure the well-being of their employees, contractors and communities. This is done through the use of our Supplier Code of Conduct (SCOC). The SCOC is embedded into all contracts. We also utilize a TELUS Supplier risk assessment and ComplyWorks tool to further monitor supplier sustainability practices and to mitigate risk.

Product Stewardship and Innovation

At TELUS, we make it a priority to deliver innovative and transformational solutions for our customers that not only provide value but deliver positive social and environmental impacts. We collaborate with partners that share these priorities and assist us in making sure we offer products and solutions designed with a full lifecycle in mind, including plans for recycling or refurbishment at the end of their life.

In 2015, internal dialog around product and services responsibility led us to enhance our efforts to implement “closed loop” systems. Some of our early initiatives in this area include:

- *Establishment of our 90 per cent waste diversion goal by 2020*
- *Recycling of office furniture, network infrastructure and equipment, and mobile devices*
- *Efforts to reduce the impacts of our products throughout their useful life.*

Waste reduction at the source

Our strategy and focus in 2015, was to work with our internal and external stakeholders to identify and action opportunities to:

- *Enhance product packaging design to reduce our environmental impact*
- *Reduce the number of trucks required to move materials through our supply chain, saving money and reducing CO₂e emissions*
- *Reduce the amount of space required to store materials in our warehouses, creating efficiencies*
- *Divert materials to a recycler, to avoid sending them to landfill.*

By collaborating with internal and external partners we identified opportunities to complete in 2015, and priorities we can address in 2016. Examples include:

- *Diverting materials from a landfill: our fiber and copper transportation company sourced a recycler for wooden cable reels once they have reached the end of their useful life. Nearly 250 wooden reels were recycled last year across Canada, diverting more than 1,250KG's of wood from landfill.*
- *Transportation: our Warehousing and Distribution team has implemented a transportation approval process to confirm urgency of material transfers between our cable yards. This will reduce transportation costs and CO₂e emissions related to the movement of materials. Prior to implementing this process, we would often pay for a dedicated truck to transport materials between locations when regularly scheduled consolidated transportation would meet business requirements.*

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- *Packaging: our technicians identified that our third-party logistics provider was shipping hardware (e.g., nuts, bolts, etc.) in individual labelled bags for each piece. This created a lot of waste for technicians who unpacked and disposed of the bags and labels, not to mention the wasted labour required by our vendor to pack and label each item. Changing this practice is leading to cost savings for both partners as well as less waste.*

2016 opportunities:

- *Explore options to reduce TELUS branded packaging for mobility accessories*
- *Re-evaluate the process for internal IT deliveries to TELUS personnel to determine if packaging reductions can occur*
- *Explore options to consolidate scheduled shipments to our field warehouse locations, reducing the number of trucks on the road*
- *Work with our third-party logistics vendor to improve inventory planning and explore options to consolidate shipments from our regional distribution warehouse to our field warehouses without impacting customer service levels or key performance indicators*
- *Work with our third-party logistics vendor, Purchasing, and Inventory Planning teams, to explore options to reduce the distance that materials travel in our internal supply chain before reaching the customer.*

As we work with our vendors to reduce packaging and increase density of materials, we need to complete change management activities with our purchasing, inventory planning teams and other internal stakeholders. This will make certain changes are well communicated, so positive initiatives in one area do not drive waste or confusion in other areas of the business.

Tools recovery blitz

With a focus on safety and recycling, in 2015 our teams in Alberta and British Columbia engaged in a spring cleaning tools recovery blitz.

The teams started by purging all non-serviceable items and non-compliant gear. This allowed certain pieces of equipment to be assigned to the repair process. This activity also reduced potential safety hazards with old equipment. Other tools were immediately added to our tools inventory for reassignment and thus positively effecting availability of tools for our new hires. This activity also resulted in cost savings of \$39,000.

Our focus for 2016 is to further drive accountability and ownership by putting in place a process that allows us to reassign tools each quarter and consolidate high value tools. This will reduce recycling and purchasing costs. For non-compliant gear, we will continue to work with our partners to recycle or resell tools where possible

6. Pollution Prevention Hierarchy and Product / Component Management

Provide a brief overview of the way in which the collected product is managed and how those outcomes relate to the pollution prevention hierarchy. Provide breakdowns by weight or percentage of product managed at each level. Please also refer to third party assurance FAQs (original version dated November 22, 2012), distributed to stewardship programs by the Ministry.

Reference: Recycling Regulation – Part 2, section 8(2)

(d) a description of how the recovered product was managed in accordance with the pollution prevention hierarchy;

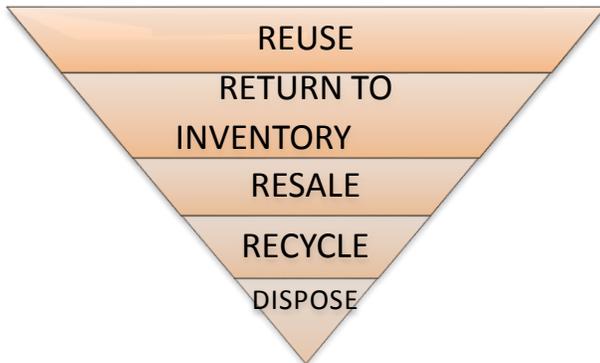
By virtue of the triage system TELUS utilizes for its electronics, pollution hierarchy is considered throughout the process. All recovered items are reused where possible and recycling is used as the last resort. TELUS defines what items are to be refurbished for reuse; what equipment can be sold for reuse; what is to be returned to our vendor under warranty; and what products must be recycled. Upon TELUS receiving the rental equipment it is tested. Working units are refurbished and restocked for reuse; defective units under warranty are returned to the manufacturer; defective units not under warranty that are beyond economical repair are recycled by TELUS' authorized electronics recycling contractor.

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Program Products collected are reported by End of Fate by level on the Pollution Prevention hierarchy:

- **Reuse:** These are FFH devices that are either reused by TELUS or sold for the purpose of reuse or refurbishment for reuse. Our 2015 FFH reuse rate was 80 percent in BC.
- **Recycle:** These are products that are processed into an End of fate commodity (e.g. Ferrous Steel, Plastics, Aluminum, Copper, Glass, Lead, etc.). In 2015 almost 499 metric tonnes of electronics and the associated batteries was recycled from our products collected in BC.
- **Recover into energy:** There currently are no processes for recovery into Energy although TELUS closely monitors developments in this industry.
- **Waste:** waste going to landfill or hazardous waste from all sources that is not reusable. For products and materials that cannot be reused or resold, TELUS pursues opportunities to recycle and divert these assets from landfills. We continue to enhance our recycling and diversion programs in our operations and are collaborating with our property managers and waste haulers with the goal of establishing waste diversion targets.

Disposition Hierarchy



Acceptable Product End of Fate

Product Type	Reuse	Recycle	Energy Recovery	Residual
TELUS TV Equipment and accessories	Preferred	Optional	N/A	N/A
Telsets	Preferred	Optional	N/A	N/A
Network Equipment	Preferred	Optional	N/A	N/A
GPS Equipment	Preferred	Optional	N/A	N/A
Batteries <2 kg	N/A	Preferred	N/A	N/A
Batteries >2 kg	N/A	Preferred	N/A	N/A

Estimated Product End of Fate Data for the year ended December 31, 2015

Product Type	Reuse (%)	Recycle (%)	Recovery (%)	Residual (%)	Unknown (%)
TELUS TV Equipment	80%	20%	0	0	0
TELUS TV Accessories	1%	99%	0	0	0
Network Equipment	85%	15%	0	0	0
Telsets	25%	75%	0	0	0
GPS	94%	6%	0	0	0
Batteries <2 kg	0	100	0	0	0
Batteries >2 kg	0	100	0	0	0

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TELUS' processors provided TELUS with an end of fate flow chart that describes where our products are recycled (City and Province or Country) and the material recovered from them such as steel, copper, aluminum, precious metals, and plastics. This processing flow takes the material recovered to a point where the processor sells the material recovered to their buyers for further processing. Our electronics recycler even sends the dust from the bag-houses for processing.

Processing Pathways

Product Type	Transfer to direct processor in BC (%)	Transfer to direct processor or multi-step processor in North America (%)	End of Fate Description
TELUS TV Equipment and accessories		100%	Processed for material recovery (metals, precious metals, plastics)
Telsets		100%	Processed for material recovery (metals, precious metals, plastics)
GPS		100%	Processed for material recovery (metals, precious metals, plastics)
Network Equipment		100%	Processed for material recovery (metals, precious metals, plastics)
Batteries <2 kg		100%	Processed for material recovery (nickel, cobalt, cadmium, lead, iron, copper, stainless steel)
Batteries >2 kg	60%	40%	Processed down to commodities for reuse or further processing (lead, acid, plastic, sulfur)

7. Product Sold and Collected and Recovery Rate

Provide a summary of the total amount of product sold, collection volumes and, if applicable, recovery rates achieved by the program based on the approach included in the approved program plan. Also provide a summary of total product recovered by regional district.

Reference: Recycling Regulation – Part 2, section 8(2)

- (e) the total amount of the producer's product sold and collected and, if applicable, the producer's recovery rate;
 (e.1) effective for a report required on or before July 1, 2013 and for every report required under subsection (1) after that date, the total amount of the producer's product recovered in each regional district;

7.1 Program Product Distributed into BC (by weight)

- Total program product distributed into BC during 2015 was 1,289 mt

7.2 Program Product Collection Volumes (by weight):

- Program product equipment 661 mt
- >2 kgs Batteries 73 mt
- Consumer Batteries 6 mt

Total program product collection volumes during 2015 was 740 mt.

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Equipment Recovered by Regional District

Regional District Name	Equipment Recovered (kilograms)*
Alberni-Clayoquot	282
Bulkley-Nechako	772
Capital	20,030
Cariboo	1,094
Central Coast	7
Central Kootenay	1,866
Central Okanagan	15,252
Columbia-Shuswap	1,768
Comox Valley	635
Cowichan Valley	1,261
East Kootenay	4,594
Fraser Valley	9,087
Fraser-Fort George	5,559
Greater/Metro Vancouver	556,265
Kitimat-Stikine	745
Kootenay Boundary	215
Mount Waddington	305
Nanaimo	5,636
North Okanagan	2,028
Northern Rockies	1
Okanagan-Similkameen	5,129
Peace River	859
Powell River	1,149

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Skeena-Queen Charlotte	8
Squamish-Lillooet	748
Stikine Region	0.5
Strathcona	704
Sunshine Coast	998
Thompson-Nicola	11,367
*Other	91,755
Provincial Total	740,120 kgs

**Other collection facilities do not have the data available to report equipment recovered by Regional District*

7.3 Program Product Recovery Rate:

- *Overall program product recovery rate for 2015 was 57.43% (up from 51.10% in 2014); this is based on the weight of units collected and the weight of units distributed. In the prior year, the recovery rate of 42.72% published in the 2014 TELUS Annual Report to the Director was based on the number of units collected and the number of units distributed. The way our recovery rate is reported has been changed from units to weight based on the format in which data is supplied to us by our processors. It is important to note that TELUS primarily distributes rental equipment and products that last for a number of years supported by network equipment that lasts for decades. As a result the ratio on an annual basis of recovered products compared to what was distributed into the market may seem small. However once you consider that the average lifecycle of our products is greater than 5 years a relative recovery rate makes more sense. This should be further rationalized against an expanding install base.*
- *TELUS' Customer Premise Equipment (Rental) Return Improvement Implementation Plan Development & Project commenced where TELUS provided return kits to our customers in an effort to increase the recovery of set top boxes, modems, receivers, and remotes.*

7.4 Reuse Rate:

- *TELUS' FFH reuse rate in 2015 was 80% as a result of TELUS' robust disposition process. For example, TELUS will reuse most consumer products up to three times during its lifecycle. This demonstrates the results of our focus on the Pollution Prevention hierarchy.*

8. Summary of Deposits, Refunds, Revenues and Expenditures

For those programs that charge deposits only:

Include a summary of deposits received and refunds paid in British Columbia by the producers (by plan if agency manages more than one plan). Attach a copy of the current year's independently audited financial statements as an appendix.

For those programs that charge a visible ecofee only:

Include a summary of fees / rates charged by the agency and provide a summary of total revenues and expenses in British Columbia (by plan if agency manages more than one plan). Attach a copy of the current year's independently audited financial statements as an appendix.

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Reference: Recycling Regulation – Part 2, Section 8(2)

(f) independently audited financial statements detailing

- (i) all deposits received and refunds paid by the producers covered by the approved plan, and
- (ii) revenues and expenditures for any fees associated with the approved plan that are charged separately and identified on the consumer receipt of sale;

TELUS funds the TELUS BC Electronics Stewardship Plan. No customers are charged an environment handling fee.

9. Plan Performance

Using the table below, provide a brief overview of the performance of the plan for the current year compared to the stated performance requirements and targets specified in the approved plan. If no specific targets have been set (e.g. new plans in first year of operation), specify baseline results, significant achievements and identify when targets will be set.

Reference: Recycling Regulation – Part 2, section 8(2)

(g) a comparison of the approved plan's performance for the year with the performance requirements and targets in this regulation and the approved plan

Plan Target	2015 Results	Strategies for Improvement
1. Target of 65% recovery was committed for 2015	<i>Overall recovery rate was 57.43% as high reuse rate of our products keeps them in the field longer. It is worthy to note that our customer premise equipment recovery rate was 60.36%.</i>	<i>Customer Premise Equipment (Rental) Return Improvement Implementation Plan Development & Project Launched.</i>

Appendices / Additional Information and Third Party Assurance

- *Third Party Assurance Statement for Non-Financial Information - attached*

Reference: Recycling Regulation – Part 2, section 8(2)

Including section 8(2)(h), any other information specified by the director

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Additional Information

Sustainable Supply Chain Initiatives

Overview

When it comes to the communities where we live and work, our commitment extends beyond the services and technology we provide. We promise to protect the most important and vital part of these communities – the environment they are a part of. TELUS does this in many ways, and making sure our suppliers place the same level of importance on sustainability is an integral consideration for our Procurement and Supply Chain Management team.

Highlights for 2015:

- Implemented several initiatives to enhance customer experience and reduce costs
- Initiated process improvements to divert waste and increase recycling
- Co-hosted a supplier diversity development workshop and increased industry collaboration
- Further strengthened our supplier governance practices

Environmental and Social Standards

TELUS adheres to strict internationally recognized environmental and social standards and we expect our suppliers to do the same. We identify and minimize environmental and social risks in our supply chain in two ways:

- **Supplier Risk assessment survey:** we use this survey to seek our suppliers' commitment to identifying the social and environmental impacts of their process and business. In 2015, we continued our practice of updating survey questions and engaging a third party with a goal to leverage their expertise in this field, increase roll-out efficiency and improve the response rate. We launched this revised survey to a new list of our top critical suppliers and we achieved a 100 per cent response rate. The questions are objective with certain responses raising a 'risk' flag. We follow up with suppliers with the intent to reduce those risks identified within 30 to 90 days, depending on the severity of the risk. In 2015, none of our respondents were deemed high-risk.
- **Supplier Code of Conduct:** all of our suppliers have a contractual obligation to abide by the [TELUS Supplier Code of Conduct](#). Our suppliers are expected to comply with all applicable environmental, labour and human rights laws and are encouraged to have a strategy, including policies and programs to manage and monitor compliance with these laws and international standards. For example, suppliers are expected to manage, monitor and reduce the environmental impact of the following:
 - Consumption of resources (e.g., fuel, electricity, water, paper, etc.)
 - Usage, handling and disposal of hazardous and non-hazardous wastes
 - Release of contaminants into the air (e.g., GHG emissions, ozone depleting substances, volatile organic compounds)
 - Release of contaminants into water and soil
 - Product life cycle, including product content as well as the recovery and appropriate disposition of materials.

Our suppliers are expected to be aware of [TELUS' Environmental Policy](#) and relevant aspects of our environmental management system, which is certified to the [ISO 14001:2004](#) standard.

Commitment with suppliers to build a sustainable supply chain

TELUS takes an active role in managing our supply base through the entire procure-to-pay process. In doing so, we seek mutually beneficial relationships inclusive of special incentives for suppliers. Specific examples include:

- Where the opportunities are available, we offer longer-term contract commitments allowing suppliers to plan and manage their production and supply management effectively.

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- *TELUS maintains a strong focus on forecasting interlock with key suppliers to be certain both parties maximize investments in their supply chains and return incremental value to shareholders and customers. Examples include weekly forecast meetings with mobile device vendors, and monthly discussions with vendors who supply equipment for infrastructure or that we provide to our business customers.*
- *We use proactive partnership models to evaluate and optimize our stranded network assets with a focus on profit sharing and environmental sustainability.*
- *To achieve best-in-class status, we forge relationships with suppliers who have environmental, social and governance factors built into their strategies, making certain our supply base is not only efficient but also robust and capable of meeting customer demands in crisis situations.*

Cooperation with the Canadian Supply Chain Management Association (SCMA)

The Supply Chain Management Association (SCMA) is the voice of the supply chain management profession in Canada, and is the principal source of training, education and professional development. TELUS is partnering with SCMA, and has joined their board to support supply chain management professionals across the country.

Sustainability Awards

In 2015, TELUS once again earned external recognition for our accomplishments and commitment to sustainability. Our efforts have resulted in TELUS being recognized as a world leader in sustainability performance and being named:

- *One of the Global 100 Most Sustainable Companies in the World by Corporate Knights for the sixth time since 2009, including ranking 53rd in 2016. TELUS is the only North American telecommunication company and one of nine Canadian companies to earn this distinction*
- *To the Dow Jones Sustainability North America or World Index. We have been a member for the past 15 years – a feat unequalled by any North American telecommunication or cable company*
- *One of Corporate Knights' Best 50 Corporate Citizens in Canada, ranking fifth in 2015 (ninth time)*
- *One of the Top 50 Socially Responsible Corporations for seven consecutive years by Jantzi-Sustainalytics*
- *One of Canada's Greenest Employers by Mediacorp (fifth time)*

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